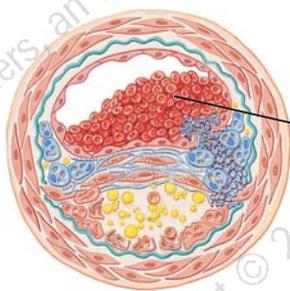
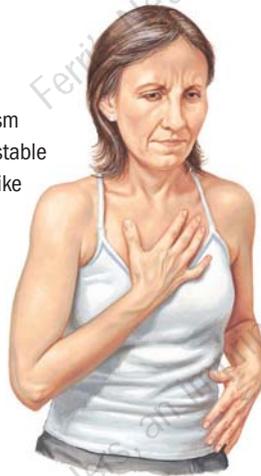
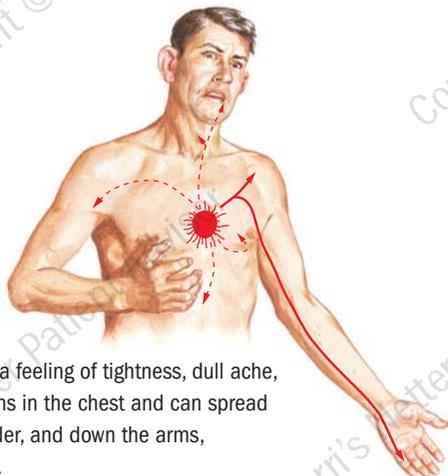


MANAGING YOUR UNSTABLE ANGINA

Angina occurs when the heart doesn't get enough oxygen. The usual cause is narrowed blood vessels (from atherosclerosis), but spasm of the coronary arteries can also cause it. Unstable angina has no pattern and doesn't go away (like stable angina). It's an emergency.



A blood clot partly blocking an artery will cause angina. If the clot grows and completely blocks the artery, a heart attack will occur.



The usual symptom is a feeling of tightness, dull ache, or heaviness that begins in the chest and can spread to the neck, left shoulder, and down the arms, especially the left arm.



Unstable angina is a medical emergency. The medical team must first stabilize your condition and decide what is causing your angina.

What Is Unstable Angina?

Angina is chest pain resulting from reduced blood and oxygen to the heart. It can be a symptom of coronary artery disease, or atherosclerosis, when cholesterol and fats (plaque) build up inside arteries. Angina can also occur from a spasm of muscles in the coronary artery.

Unstable angina is increasing unpredictable chest pain. It is less common than stable angina. Unstable angina pain doesn't follow a pattern, can happen without exertion, and doesn't go away by resting or taking medicine. Unstable angina is an emergency.

What Causes Unstable Angina?

Blood clots, which form plaques in the arteries, break open and block arteries. Clots may form, partly dissolve, and re-form. Unstable angina can occur whenever a clot blocks the coronary artery. Untreated clots may grow enough to block an artery completely and cause a heart attack.

What Are the Symptoms of Unstable Angina?

Symptoms include mild or severe discomfort or pain in the chest, felt as tightness, dull ache, or heaviness that may spread down the arms (especially left arm) or to the neck, shoulder, or jaw; shortness of breath; nausea; sweating; or weakness. Symptoms often occur at rest or with little physical exertion and are severe, long-lasting, and can't be predicted or helped by rest or medicine.

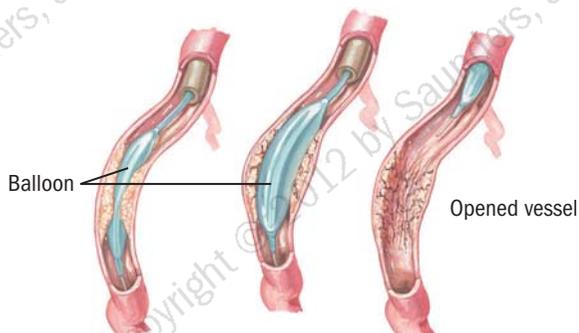
How Is Unstable Angina Diagnosed?

The doctor will take a medical history, do an examination, blood tests to evaluate the presence of chemicals from cardiac cell injury, electrocardiography (ECG), and chest x-rays. Emergency room doctors start treatment while they quickly find out how badly the heart is affected. Heart and breathing rates, blood pressure, and blood oxygen levels are measured.

If a blockage is suspected, the doctor may also look at heart arteries by a special x-ray test (coronary angiography). A specialist in heart diseases (cardiologist) passes a thin, flexible tube through an artery in the groin or arm to heart arteries.



Emergency treatment usually includes oxygen, drugs to relieve pain and widen arteries, and aspirin to prevent blood clots. After your condition is stable, your medical team will decide on treatment, probably drugs to stop blood clots, lower blood pressure, and reduce cholesterol.



Severe angina that can't be treated with medicine may need angioplasty (opening clogged blood vessels with a balloon-like device).

Exercise under medical supervision to make the heart stronger and lose weight.



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NOTES

How Is Unstable Angina Treated?

First, emergency room doctors stabilize a person's condition. Painkillers, aspirin (prevent blood clots), and oxygen (help breathing) may be given. A nitroglycerin capsule that dissolves inside the mouth widens the heart's blood vessels. Other drugs may be given to control blood pressure and open arteries.

Later treatments in the hospital (and after the hospital stay) include drugs (e.g., aspirin, clopidogrel, heparin) to stop clotting, medicines to lower blood pressure, and drugs (statins) to reduce blood cholesterol and fat levels.

Other treatments include operations called balloon angioplasty and stenting, and coronary artery bypass graft (CABG). For balloon angioplasty, blocked arteries are widened with a tiny balloon. A metal tube (stent) can be put in arteries to keep them open. In CABG, veins or arteries are transferred and sewn on (grafted) to blocked arteries so that blood flow can get past the blockage.

DOs and DON'Ts in Managing Unstable Angina:

- ✓ **DO** visit your doctor regularly and take all prescribed medicines.
- ✓ **DO** lose weight and eat healthy.
- ✓ **DO** always carry nitroglycerin with you and take it if needed.
- ✓ **DO** exercise only when approved to do so by your doctor.
- ✓ **DO** quit smoking.
- ✓ **DO** lower stress.
- ✓ **DO** know how and when to get medical care, because of heart attack risk.
- ⊘ **DON'T** delay getting medical care if symptoms worsen.
- ⊘ **DON'T** stop taking medicine without talking to your doctor.

FOR MORE INFORMATION

Contact the following sources:

- American Heart Association
Tel: (800) 242-8721
Website: <http://www.americanheart.org>
- American College of Cardiology
Tel: (202) 375-6000
Website: <http://www.acc.org>
- National Heart, Lung, and Blood Institute
Tel: (301) 592-8573
Website: <http://www.nhlbi.nih.gov>